Standard Indicators
SCIENCE 3.1.3

Class Census

Purpose

Students will keep and report records of an investigation using journals, charts, graphs, and computers.

Materials

For the teachers: chalk, chalkboard
For the students: science journal, pencil, Internet access, computer (Internet access and computer can be individual, or in groups)

Activity

A. Introduction

1. Ask students how many boys and girls there are in the class and record the answer on the chalkboard.
2. Ask students how many students have on a blue shirt, a green shirt, or another color of shirt. Again, record the information on the chalkboard.
3. Explain to students that they just took a "census" of boys and girls and blue, green, and other shirts.
4. Ask students several rhetorical questions, such as: "How many people live in Indiana compared to California? Which state grew the most in population over the last ten years? Where do the most children under the age of five live?"
5. Ask: "How can you find the answers to those questions?" Allow students to respond.
6. Explain that the United States government conducts its own census to answer those types of questions.
7. Explain that scientists collect data to assist them in investigations in a similar way that the government studies and records information about the country. When a lot of data is collected, it is often difficult to make sense of it.
8. Ask students if they can think of ways to represent lots of information in a simple way. Explain that scientists often use graphs, charts, and computers to simplify complicated information. One type of graph is a bar graph.

B. Count Them Up

1. Using the information already on the board, make a chart of how many boys and girls or how many of each color shirt there are in the class. Instruct students to record the chart in their journals.

Technology Literacy Standards

	I	II	III	IV	V	VI	VII
1	X						
2	X	X	X				
3				X			
4							
5							
6				X			
7							
8							
9							
10							
11				X			
12							
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16							

X = This Technology Literacy Standard is addressed in this lesson.

= This Technology Literacy Standard is not addressed in this lesson.

2. Using the data in the chart, make a bar graph of the results. Draw the graph on the chalkboard and have students record it in their science journals.
3. Walk around the room and check students' progress. Make sure students remember to include a title and label both axes.
4. Ask students if they know of any other kinds of graphs they could have constructed. Demonstrate how the same information can be shown in different types of graphs such as a horizontal bar graph.

C. A Census of Accomplishment

1. Instruct each student to think of one "census-type" question to investigate in the classroom. Brainstorm with the class to help students start thinking.
2. Have each student record his/her question in his/her science journal.
3. Have students collect and record data in his/her journal. To collect data, have students visit Kid's Corner at the U.S. Census website at http://factfinder.census.gov/home/en/kids/kids.html
3. Instruct each student to make a chart and then a graph of his/her data.
4. Have each student report to the class, sharing his/her question and the data he/she collected.

Questions for Review

Basic Concepts and Processes

After students have completed their own census investigation, ask questions such as:

 Can you show me where and how you recorded your data?

 How do charts and graphs help you record observations?

 What things should a graph include?

 Explain how you made your graph.